

CLAIMS

What is claimed is:

- 1 1. A method for accessing a destination computer behind a firewall, the
2 method comprising:
3 receiving a request from a destination computer behind the firewall, the
4 destination computer request demonstrating that the destination computer is
5 available to be accessed;
6 receiving a request from a remote browser to access the destination
7 computer;
8 associating the browser with the destination computer using the browser
9 request and a corresponding destination computer request; and
10 providing communication between the browser and the destination
11 computer, the communication being in a form acceptable to the firewall.
- 1 2. The method of claim 1 further comprising activating the destination
2 computer upon receiving the browser request.
- 1 3. The method of claim 2 wherein activating the destination computer
2 further comprises:
3 notifying a user of an estimated waiting period of time required to
4 complete activation;

5 performing authentication of a user by the destination computer; and
6 redirecting the destination computer to an intermediary URL for further
7 communication with bridge proxy.

1 4. The method of claim 1 wherein the browser request is encrypted.

1 5. The method of claim 1 further comprising uniquely identifying the remote
2 browser based upon a combination of a source Internet address, an intermediary
3 Internet address and an intermediary port.

1 6. The method of claim 5 wherein the combination is used to identify a
2 session between the browser and the destination computer.

1 7. The method of claim 5 further comprising:
2 redirecting the browser to the intermediary Internet address and port; and
3 assigning a listener to the intermediary Internet address and port.

1 9. The method of claim 1 wherein providing communication further
2 comprises:
3 receiving multiple browser requests using corresponding sockets, the
4 multiple browser requests being issued during a session between the browser
5 and an intermediary service;

6 storing information identifying each of the multiple browser requests;
7 sending the multiple browser requests to the destination computer in a
8 form of an http response, the http response constituting a reply to the most
9 recent of the destination computer requests;
10 receiving a destination computer response to one of the multiple browser
11 requests, the destination computer response being included in an http request;
12 and
13 sending the destination computer response to the browser using a
14 corresponding socket.

1 10. The method of claim 9 wherein the destination computer response is
2 encrypted.

1 11. The method of claim 9 wherein the identifying information includes
2 session information and a socket number.

1 12. The method of claim 1 wherein the communication between the browser
2 and the destination computer is provided in a secure manner.

1 13. A method for providing access to a destination computer behind a
2 firewall, the method comprising:
3 sending destination computer requests to an intermediary service at

4 predetermined intervals, the destination computer requests demonstrating that
5 the destination computer is available to be accessed;
6 receiving a response from the intermediary service, the response
7 including a request of a remote browser to access the destination computer;
8 generating information in response to the browser request; and
9 sending the generated information to the intermediary service, the
10 generated information being sent in a form of a request.

1 14. The method of claim 13 wherein the destination computer requests are
2 http requests.

1 15. The method of claim 13 wherein the information generated by the
2 destination computer is included in an http request.

1 16. The method of claim 13 wherein each of the destination computer requests
2 establishes a TCP/IP connection with an intermediary service.

1 17. The method of claim 13 wherein each of the destination computer requests
2 includes an identifier of the destination computer and a time of a next request.

1 18. The method of claim 13 wherein predetermined intervals are periodically
2 redefined by the intermediary service.

1 19. The method of claim 13 further comprising authenticating a user of the
2 remote browser by the intermediary service and the destination computer.

1 20. The method of claim 13 further comprising:
2 receiving an intermediary URL from the intermediary server; and
3 sending a subsequent destination computer request to the intermediary
4 URL.

1 21. The method of claim 20 wherein the response of the intermediary service
2 constitutes a reply to the subsequent destination computer request.

1 22. The method of claim 13 wherein the response of the intermediary service
2 includes multiple browser requests.

1 23. The method of claim 22 comprising:
2 separating each of the multiple browser requests included in the response
3 of the intermediary service;
4 generating a response to each of the multiple browser requests; and
5 sending the response to the intermediary service, the response being
6 included into an http request.

1 24. A system for accessing a destination computer behind a firewall, the

2 system comprising:

3 the destination computer issuing requests demonstrating that the

4 destination computer is available to be accessed;

5 a remote browser issuing a browser request to access the destination

6 computer;

7 an intermediary service coupled to the browser and the destination

8 computer via a network, the intermediary service receiving the destination

9 computer requests and the browser request, associating the browser with the

10 destination computer using the browser request and a corresponding destination

11 computer request, and providing communication between the browser and the

12 destination computer, the communication being in a form acceptable to the

13 firewall.

1 25. The system of claim 24 wherein the intermediary service is further

2 configured to coordinate activation of the destination computer upon receiving

3 the browser request.

1 26. The system of claim 24 wherein the intermediary service is further

2 configured to uniquely identify the remote browser based upon a combination of

3 a source Internet address, an intermediary Internet address and an intermediary

4 port.

1 27. The system of claim 24 wherein the intermediary service comprises a
2 bridge proxy configured to
3 receive multiple browser requests using corresponding sockets, the
4 multiple browser requests being issued during a session between the browser
5 and an intermediary service,
6 store information identifying each of the multiple browser requests,
7 send the multiple browser requests to the destination computer in a form
8 of an http response, the http response constituting a reply to the most recent of
9 the destination computer requests,
10 receive a destination computer response to one of the multiple browser
11 requests, the destination computer response being included in an http request,
12 and
13 send the destination computer response to the browser using a
14 corresponding socket.

1 28. The system of claim 24 wherein the intermediary service provides secure
2 communication between the browser and the destination computer.

1 29. The system of claim 24 wherein the destination computer requests are http
2 requests.

1 30. The system of claim 24 wherein each of the destination computer requests

2 includes an identifier of the destination computer and a time of a next request.

1 31. The system of claim 24 wherein the destination computer generates
2 information in response to the browser request and transmits the generated
3 information to the intermediary service in a form of an http request.

1 32. The system of claim 24 wherein the destination computer comprises a
2 bridge adapter receiving an intermediary URL from the intermediary server and
3 sending a subsequent destination computer request to the intermediary URL.

1 33. The system of claim 32 wherein the bridge adapter is further configured to
2 receive a response from the intermediary service, the response including
3 multiple browser requests,
4 separate each of the multiple browser requests included in the response of
5 the intermediary service, and
6 send a response to each of the multiple browser requests to the
7 intermediary service, the response being included into an http request.

1 34. A computer readable medium comprising instructions, which when
2 executed on a processor, cause the processor to perform a method for accessing a
3 destination computer behind a firewall, the method comprising:
4 receiving a request from a destination computer behind the firewall, the

5 destination computer request demonstrating that the destination computer is
6 available to be accessed;

7 receiving a request from a remote browser to access the destination
8 computer;

9 associating the browser with the destination computer using the browser
10 request and a corresponding destination computer request; and

11 providing communication between the browser and the destination
12 computer, the communication being in a form acceptable to the firewall.

1 35. A computer readable medium comprising instructions, which when
2 executed on a processor, cause the processor to perform a method for providing
3 access to a destination computer behind a firewall, the method comprising:

4 sending destination computer requests to an intermediary service at
5 predetermined intervals, the destination computer requests demonstrating that
6 the destination computer is available to be accessed;

7 receiving a response from the intermediary service, the response
8 including a request of a remote browser to access the destination computer;

9 generating information in response to the browser request; and

10 sending the generated information to the intermediary service, the

11 generated information being sent in a form of a request.